



NASA Planetary Data System

2007-08

College Student Investigators

Student Handbook



Table of Contents

Overview	3
Proposal.....	4
Communication.....	4
Travel	5
How To Get Paid.....	5
Important Contact Information.....	6
Timeline.....	6

Overview

Welcome to the Planetary Data System ***College Student Investigators*** program! The objective of this program is to involve undergraduate students in research and development projects related to the holdings of NASA's Planetary Data System (PDS). Through the PDS ***College Student Investigators*** program, the PDS strives to prepare the next generation of PDS science investigators.

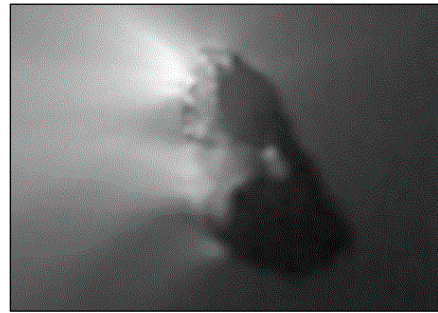


Figure 1: Comet Halley/ESA

The PDS includes nodes operated by university/research center science teams and the Jet Propulsion Laboratory (Atmospheres, Geosciences, Planetary Imaging, Planetary Plasma Interactions, Rings, Small Bodies, and Engineering). These nodes specialize in specific areas of planetary data. The contributions from these nodes provide a data-rich source for scientists, researchers and developers. You can visit them through the links on the PDS Home Page (<http://pds.nasa.gov>). You will learn more about the archives of each node, and about the education and public outreach services that these nodes provide.

As a participant in the PDS ***College Student Investigators*** program, you will conduct a research and/or development project using data from one of the nodes. You will develop a proposal that describes your project concept, and you will present this proposal to the PDS Management Council in Summer 2007 (exact dates, TBA). Then you will work on your project with guidance from your mentor at the Node over the course of the program. You will present your work-in-progress at the Division of Planetary Science meeting in Orlando, FL, in October 2007, and your final presentation will be at the end of the program in June 2008.

This document provides details on what is expected of you as a participant in the PDS ***College Student Investigators*** program. The ensuing sections discuss the proposal, communication (reporting and points of contact), travel, and how to get paid. A timeline with important milestones is given at the end of the document (you may want to copy the timeline and put it up on your wall).

The PDS is delighted to have you as a participant in the ***College Student Investigators*** program. We look forward to working with you to make this an interesting and rewarding experience.

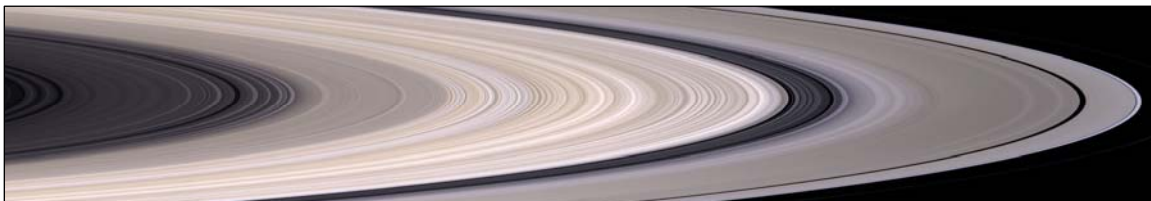


Figure 2: Saturn's Rings/NASA/JPL

Proposal

During the first six months of the program, you will develop a proposal for your project with guidance from your mentor at the Node. You will spend some time doing background research, then craft a problem that can be addressed using data from your PDS node. A draft of the proposal will be submitted to the PDS ***College Student Investigators*** office in May, and then the final proposal, with the signature of your mentor, will be submitted in the Summer at the PDS Management Council meeting, where you will give a brief presentation on your proposal.

The research proposal should contain the following sections: Abstract, Introduction, Research Question, Method, and Timeline. The Abstract (often easiest to write last) is a short paragraph that describes the main points of the proposal. The Introduction should be a summary of the background research that led to the development of the proposal. It should include a discussion of related work. This section should lead naturally into a statement of your Research Question, which is the crux of the project that you will do as a participant in the PDS ***College Student Investigators*** program. The next section should describe the Method that you plan to use to answer your research question, and it should indicate which data from the PDS you plan to use. Finally, a Timeline should be included to point out major milestones along the way (such as, data retrieved and analyzed, DPS abstract draft submitted to mentor, DPS abstract submitted, draft of paper submitted to mentor, draft of paper submitted to PDS ***College Student Investigators*** office, and Final Report completed). We will discuss the format of the proposal in the Monthly Teleconferences (see next section).

Communication

You are part of a program that has participants at different Nodes in the PDS. These Nodes are geographically distributed around the country. Once per month, we will meet on a teleconference to discuss everyone's progress and challenges. These teleconferences will typically be held on the last Monday of the month. On the preceding Friday, you should email the PDS ***College Student Investigators*** office a short summary of your month's work which includes accomplishments and challenges you may have faced. (See the Timeline for reminders of the dates for reporting and the teleconferences.) Once we know everyone's schedule, we will pick a time for the teleconferences and a toll-free number will be distributed.

Send your monthly summaries to: susan.hoban@gsfc.nasa.gov
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Speak with your mentor to determine a schedule that works for both of you so that you are able to keep your mentor informed of your progress.

Travel

You will take three trips during the course of this 18-month program. In Summer 2007, you will travel to the PDS Management Council meeting to present your research proposal (exact dates and location to be announced). In October 2007, you will travel to the Division of Planetary Sciences meeting in Orlando, FL, to present the results of your work-in-progress. Finally, in June 2008, you will travel to the PDS Management Council meeting to present your Final Report (exact dates and location to be announced).

The travel expenses for these trips will be paid for as part of the program. Travel arrangements will be coordinated through the PDS *College Student Investigators* office.



Figure 3: Mars Rover/JPL/NASA

How To Get Paid

This is everyone's favorite section! You will be compensated for 10 hours/week during the semesters, and 40 hours/week during the summer months (June – August). You will be paid \$12/hour.

You will be hired as a "Contingent Employee" of the University of Maryland, Baltimore County. You will be required to fill in bi-weekly timesheets. At the end of the reporting period (which will be marked on your timesheet), you must fax the timesheet to UMBC. At the end of each month, you must mail the original, signed timesheets to UMBC. See below. You are responsible for submitting your timesheets. Take this responsibility seriously. Although you will be an employee of the State of Maryland, you will be "living and working in another state," so when filling out your tax forms, on the W4- line 7, you will enter exempt for state allowance and write in the same section "living and working in another state."

FAX bi-weekly timesheets at end of pay period to: Camilla Hyman, 410.455.8806

Mail original timesheets at end of month to:

Camilla Hyman

GEST Center

University of Maryland Baltimore County

5523 Research Park Drive, Suite 320

Baltimore, MD 21228

Important Contact Information

For what?	Name	Phone	e-mail
PDS College Student Investigator office	Dr. Susan Hoban	301.286.7980	susan.hoban@gsfc.nasa.gov
Payroll	Camilla Hyman	410.455.8899	hyman1@umbc.edu
Your Mentor!			

Timeline

Date	Milestone
January 2007	Project begins. Begin background research for proposal.
January 26, 2007	Email monthly summary for January.
January 29, 2007	CSI Teleconference Submit January timesheets (10 hrs/wk).
February 23, 2007	Email monthly summary for February.
February 26, 2007	CSI Teleconference Submit February timesheets (10 hrs/wk).
March 23, 2007	Email monthly summary for March.
March 26, 2007	CSI Teleconference Submit March timesheets (10 hrs/wk).
April 27, 2007	Email monthly summary for April.
April 30, 2007	CSI Teleconference Submit April timesheets (10 hrs/wk).
May 18, 2007	Email monthly summary for May. Email draft of proposal.

Timeline continued

May 21, 2007	CSI Teleconference (early due to Memorial Day) Submit May timesheets (10 hrs/wk).
June 2007 (Dates TBA)	PDS CSI Kick-off Meeting Present proposal to PDS Management Council.
June 22, 2007	Email monthly summary for June.
June 25, 2007	CSI Teleconference Submit June timesheets (40 hrs/wk).
July 2007	Submit abstract for poster to DPS.
July 27, 2007	Email monthly summary for July.
July 30, 2007	CSI Teleconference Submit July timesheets (40 hrs/wk).
August 24, 2007	Email monthly summary for August.
August 27, 2007	CSI Teleconference Submit August timesheets (40 hrs/wk).
September 21, 2007	Email monthly summary for September.
September 24, 2007	CSI Teleconference Submit September timesheets (10 hrs/wk).
October 7 – 12, 2007	DPS Meeting in Orlando, FL
October 26, 2007	Email monthly summary for October.
October 29, 2007	CSI Teleconference Submit October timesheets (10 hrs/wk).
November 16, 2007	Email monthly summary for November.
November 19, 2007	CSI Teleconference (early for Thanksgiving Holiday) Submit November timesheets (10 hrs/wk).
December 14, 2007	Email monthly summary for December.
December 17, 2007	CSI Teleconference (early for Winter Break) Submit December timesheets (10 hrs/wk).

Timeline continued

January 25, 2008	Email monthly summary for January.
January 28, 2008	CSI Teleconference Submit January timesheets (10 hrs/wk).
February 22, 2008	Email monthly summary for February.
February 25, 2008	CSI Teleconference Submit February timesheets (10 hrs/wk).
March 28, 2008	Email monthly summary for March.
March 31, 2008	CSI Teleconference Submit March timesheets (10 hrs/wk).
April 25, 2008	Email monthly summary for April.
April 28, 2008	CSI Teleconference Submit April timesheets (10 hrs/wk).
May 16, 2008	Email monthly summary for May. Email draft of Final Paper.
May 19, 2008	CSI Teleconference (early due to Memorial Day) Submit May timesheets (10 hrs/wk).
June 2008 (Dates TBA)	Present Final Paper to PDS Management Council.
June 30, 2008	Submit June timesheets (40 hrs/wk).